

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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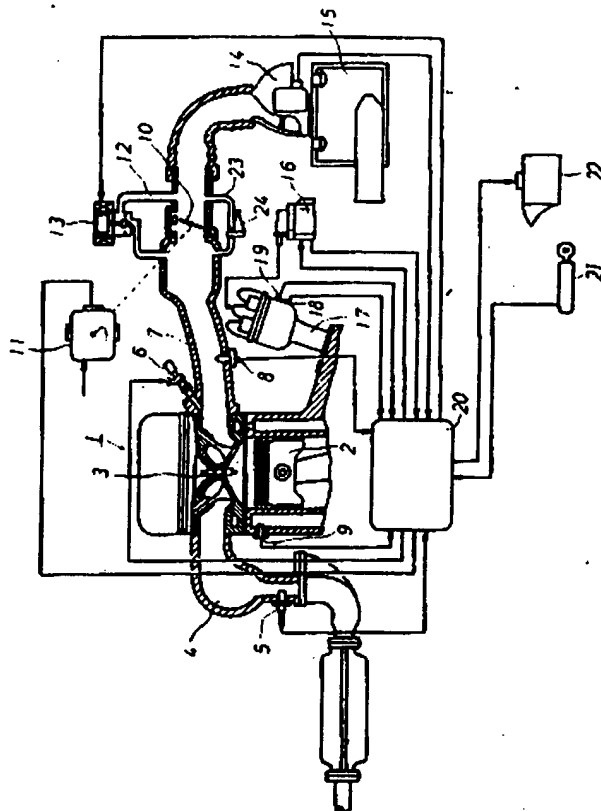
APPLICATION DATE : 11-03-82  
APPLICATION NUMBER : 57038366

APPLICANT : TOYOTA MOTOR CORP;

INVENTOR : ISOBE TOSHIKI;

INT.CL. : F02D 33/00 F02D 9/02

TITLE : CONTROL METHOD AND DEVICE FOR  
IDLING REVOLUTION NUMBER



**ABSTRACT :** PURPOSE: To improve the reliability of starting when a battery is deteriorated in a device provided with an idling speed control valve to regulate the air flow bypassing a throttle valve by fully opening the valve while an engine is stopped and maintaining the fully opened state while the engine is started.

CONSTITUTION: The captioned device is provided with an idling speed control valve (ISCV)13 inside a bypass passage 12 to bypass a throttle valve 10 of a carburetor. This valve 13 is controlled in such a way as the number of idling revolutions is brought to a fixed number by an electronic control circuit 20 in accordance with various sensors detecting the driving state. In this case, the above-said ISCV13 is formed into a linear solenoid type to be fully opened when current is not supplied. When an engine is stopped, the ISCV13 is fully opened, and the fully opened state is maintained while the engine is started. This construction permits to prevent the ISCV13 from being freezed at the coldest weather as well as to secure a good starting due to the opened state of the ISCV13 even though a battery is deteriorated.

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